The Centers for Disease Control and Prevention (CDC) has collaborated with Indonesia for more than fifty years. Short- and long-term technical assistance from CDC staff has helped the Indonesian Ministry of Health (MoH) address a wide range of high-priority public health needs including communicable diseases, noncommunicable diseases, injuries, and strengthening surveillance. CDC has funded cooperative agreements with the MoH since 2004.

### Impact in Indonesia

- Expanded Early Warning and Response System for 17 priority diseases including influenza-like illness, pneumonia, and diarrhea for the nationally notifiable disease surveillance system.
- Reported malaria deaths in South Halmahera district decreased from 226 to 11, and malaria incidence decreased by 50% from 2004-2009.
- A study that established lung function standards for Indonesian adults and children produced data used by the Minister of Health to develop a policy to limit tobacco use in public buildings.

### Influenza and Respiratory Disease Surveillance

The Influenza Division activities assist in building the evidence-base for influenza control and prevention, including for seasonal, avian, and pandemic influenza. Through two cooperative agreements, CDC funded the Indonesia MoH to build capacity in influenza pandemic preparedness, including communications, infection control, rapid response, country planning, including intersectoral functional exercises, virological and epidemiological influenza surveillance. Each of these was important in responding to the H1N1pdm09 pandemic. CDC funding continues to support routine influenza surveillance, the National Influenza Center laboratory and the integration of surveillance with disease program policy development. Surveillance systems established are increasingly self-sustained and are being expanded to examine other public health priorities such as pneumonia and dengue. In 2011, the Indonesia MoH, in collaboration with CDC and USAID, began piloting an enhanced surveillance project to better understand the burden of seasonal and avian influenza in the East Jakarta District. In addition to establishing disease burden estimates, this project is identifying mechanisms for enhancing routine surveillance system functions.

### Malaria

Malaria causes several million infections and about 10,000 deaths each year in Indonesia. CDC has a staff working closely with UNICEF-Indonesia to assist with evidence-based integrated malaria control. The focus includes three major interrelated programs: a malaria elimination effort in the province of Aceh, control of malaria in highly endemic eastern Indonesia via integration with routine expanded program on immunization (EPI) and maternal health, and development of a network of Indonesian and foreign researchers supporting evidence-based malaria control.

Recent achievements include integrating malaria control activities into ongoing immunization and prenatal care programs in five provinces in eastern Indonesia with funding from USAID, the Gates Foundation, the MOH, and UNICEF followed by expanding the program to all regions in the country where malaria continuously occurs (covering a population of approximately 100 million people) with support from the Global Fund and the MOH.
Vector-Borne Diseases

CDC provides technical support for development of a world class laboratory at the Eijkman Institute of Molecular Biology in Jakarta for detection of emerging viruses. The project links field researchers in various parts of the country to detect emerging diseases in humans in contacts with wildlife and other high-risk populations. CDC also supports dengue serotype surveillance and identification of other arboviruses.

Field Epidemiology Training Program (FETP)

In 1982 CDC helped establish an FETP in Indonesia to build sustainable capacity for detecting and responding to health threats. More than 400 residents have graduated from the program and are now assuming public health leadership positions in Indonesia and other countries in the region. In 1990 the FETP evolved into a Master’s Program at the University of Indonesia and the University of Gadjah Mada. CDC has re-engaged with the MoH to continue recent efforts to help the FETP become more field-based. In 2014, CDC placed resident advisor in-country to strengthen field assignments and to provide essential mentorship and instruction on special topics such as disaster epidemiology, spatial analysis, scientific writing, and communications.

Tobacco Control

CDC and WHO established a globally standardized surveillance system to track the tobacco epidemic and evaluate policy measures. The Global Tobacco Surveillance System is a set of standard surveys for adults and youth that a country can use to monitor, design, implement, and evaluate tobacco control interventions. Activities support the WHO MPOWER package, which includes six strategies proven to decrease smoking and save lives. In 2011 CDC supported the Indonesia Global Adult Tobacco Survey (GATS) in collaboration with the MoH, Statistics Indonesia, and the National Institute for Health Research and Development. The survey results will be released in the fall of 2012 and for the first time the data will document the scale of the tobacco problem for the entire nation. Indonesia also conducted the Global Youth Tobacco Survey (GYTS) at a subnational level and plans to conduct a national survey in 2012. The 2009 GYTS results show that 20.3% of 13-to-15-year-old students currently smoke cigarettes and 83.4% of current youth smokers want to stop smoking. CDC and its partners support the MoH and its partners in using data to impact policies and to add tobacco curriculum to the FETP.

Immunization

Since August 2012, The Global Immunization Division of CDC has seconded a medical officer to the WHO Indonesia Country Office to support country-wide immunization and vaccine preventable disease surveillance systems strengthening. The epidemiologist is currently heading up the WHO EPI unit in Indonesia and manages a staff of 10 and an annual budget of approximately $2 million. Objectives include maintaining polio free status, working toward measles elimination, introducing new vaccines (such as Hib, Rubella, Japanese Encephalitis, Rotavirus, Pneumococcal, IPV, and Influenza), controlling a large Diphtheria outbreak in East Java, and improving routine immunization coverage across the country.